

TABLE A-8. U.S. AIR FORCE BUDGETS FOR SELECTED FISCAL YEARS
1964-1980 (In billions of current dollars)

Program	1964	1968	1972	1974	1976	1978	1979	1980
Military								
Personnel <u>a/</u>								
Budget authority	4.49	5.84	7.26	7.80	7.56	7.99	8.43	9.00
Outlays	4.55	5.81	7.28	7.66	7.44	7.94	8.35	9.02
Operations and Maintenance <u>b/</u>								
Budget authority	4.56	6.16	6.82	7.69	8.71	9.84	10.82	14.15
Outlays	4.70	6.21	7.16	7.34	8.61	9.76	10.48	13.61
Procurement								
Budget authority	6.37	9.36	6.01	5.86	7.70	9.88	10.71	12.80
Outlays	6.96	9.41	6.05	5.37	6.48	7.33	8.91	10.90
Research, Development, Test, and Evaluation								
Budget authority	3.54	3.39	2.90	3.07	3.61	4.17	4.40	5.06
Outlays	3.72	3.80	3.21	3.24	3.34	3.63	4.08	5.02
Military Construction <u>a/</u>								
Budget authority	0.49	0.50	0.31	0.28	0.63	0.47	0.54	0.63
Outlays	0.55	0.49	0.33	0.29	0.41	0.54	0.61	0.70
Total								
Budget authority	19.45	25.25	23.30	24.70	28.21	30.65	33.04	41.64
Outlays	20.48	25.72	24.03	23.90	26.28	27.52	30.61	39.25

a/ Includes active and reserve forces.

b/ Includes only active forces in 1964 and 1968; includes active and reserve forces from 1972 on.

**TABLE A-9. U.S. MARINE CORPS BUDGETS FOR SELECTED FISCAL YEARS
1964-1980 (In billions of current dollars)**

Program	1964	1968	1972	1974	1976	1978	1979	1980
Military								
Personnel <u>a/</u>								
Budget authority	0.76	1.47	1.53	1.73	1.93	2.10	2.19	2.33
Outlays	0.76	1.47	1.48	1.64	1.88	2.09	2.14	2.32
Operations and Maintenance <u>b/</u>								
Budget authority	0.19	0.43	0.37	0.45	0.53	0.68	0.77	0.87
Outlays	0.18	0.43	0.39	0.40	0.50	0.64	0.72	0.84
Procurement								
Budget authority	0.20	0.73	0.10	0.21	0.28	0.44	0.36	0.28
Outlays	0.24	0.78	0.14	0.13	0.19	0.31	0.40	0.37
Total								
Budget authority	1.15	2.63	2.00	2.39	2.74	3.22	3.32	3.48
Outlays	1.18	2.68	2.01	2.17	2.57	3.04	3.26	3.53

a/ Includes active and reserve forces.

b/ Includes only active forces in 1964 and 1968; includes active and reserve forces from 1972 on.

TABLE A-10. U.S. DEFENSE AGENCIES BUDGETS: FOR SELECTED FISCAL YEARS 1964-1980 (In billions of current dollars)

	1964	1968	1972	1974	1976	1978	1979	1980
Operations and Maintenance								
Budget authority	0.48	0.97	1.22	1.56	2.55	2.96	3.16	3.64
Outlays	0.47	0.96	1.22	1.54	2.51	2.86	3.18	3.57
Procurement								
Budget authority	0.04	0.04	0.05	0.07	0.20	0.33	0.27	0.29
Outlays	0.03	0.04	0.05	0.06	0.10	0.22	0.24	0.30
Research, Development, Test, and Evaluation								
Budget authority	0.48	0.46	0.45	0.46	0.60	0.75	0.89	1.04
Outlays	0.38	0.51	0.47	0.50	0.51	0.69	0.81	0.98
Military Construction								
Budget authority	0.05	0.04	0.01	--	0.02	0.05	0.18	0.22
Outlays	0.05	0.01	0.01	0.01	0.02	0.02	—	-0.01
Total								
Budget authority	1.05	1.51	1.73	2.09	3.37	4.09	4.50	5.19
Outlays	0.93	1.52	1.75	2.11	3.14	3.79	4.23	4.84

TABLE A-11. BUDGETS BY APPROPRIATIONS ACCOUNT: FOR SELECTED FISCAL YEARS 1964-1980 (In billions of current dollars)

	1964	1968	1972	1974	1976	1978	1979	1980
Military Personnel <u>a/</u>								
Budget authority	12.66	20.02	22.97	24.18	25.21	27.24	28.71	31.02
Outlays	12.98	19.86	23.03	23.73	24.86	27.08	28.41	30.85
Procurement								
Budget authority	15.64	23.41	17.78	17.04	20.98	29.54	31.43	35.38
Outlays	15.34	23.27	14.15	15.24	15.97	19.97	25.40	29.02
Operations and Maintenance <u>b/</u>								
Budget authority	11.67	20.90	20.89	23.89	28.65	34.65	37.88	46.20
Outlays	11.87	20.50	21.74	22.43	27.76	33.51	36.32	45.12
Research, Development, Test, and Evaluation								
Budget authority	6.98	7.28	7.52	8.15	9.43	11.35	12.41	13.52
Outlays	7.02	7.74	7.89	8.55	8.91	10.48	11.13	13.09
Military Construction <u>a/</u>								
Budget authority	0.95	1.54	1.28	1.56	2.36	1.64	2.31	2.28
Outlays	1.02	1.27	1.10	1.40	2.01	1.92	2.07	2.44
Civil Defense								
Budget authority	0.11	0.09	0.08	0.08	0.09	--	--	--
Outlays	0.11	0.11	0.07	0.08	0.08	--	--	--
Family Housing								
Budget authority	0.64	0.61	0.86	1.10	1.23	1.35	1.56	1.53
Outlays	0.58	0.50	0.69	0.89	1.19	1.40	1.47	1.68
Total								
Budget authority	48.65	73.85	71.38	76.00	87.95	105.77	114.30	129.93
Outlays	48.92	73.25	68.67	72.32	80.78	94.36	104.80	122.20

a/ Includes active and reserve forces.b/ Includes only active forces in 1964 and 1968; includes active and reserve forces from 1972 on.

APPENDIX B. DETAILS OF THE CBO BASELINE METHODOLOGY

OPERATING COSTS

To estimate the operating costs that make up a substantial portion of the CBO baseline requires detailed information on the forces that will function over the next five years. Thus, the baseline projects operating forces at the level of major type of ship, individual aircraft, and Army and Marine Corps divisions. Force levels are assumed to increase only if the Congress has funded development or procurement of systems beyond the level required to replace older units.

The baseline includes both fixed and variable operating costs for each weapon system. These costs are based on Congressional decisions for the most recent fiscal year—fiscal year 1981 in this report.

INVESTMENT COSTS

The baseline profile for purchase of new weapons systems is derived from several sources. It begins with DoD's justification material supporting the Administration's annual defense budget request and five-year plan--in this case, the request for fiscal year 1981 and the plan for fiscal years 1981-1985. ^{1/} Modifications of the baseline then depend on Congressional actions.

In those cases in which the Congress fully funded a DoD program request for fiscal year 1981, the baseline assumes the DoD funding profile for the remaining years of the program. This rule applies both to programs in research and development and to those in procurement, including programs that are currently in engineering or full-scale development stages and will soon enter procurement. For programs about to enter procurement, it is

^{1/} A variety of additional materials are used to extend the baseline to 1986.

assumed that the program's transition from research and development to procurement is in accordance with DoD's timetable.

In those cases in which the Congress funded programs in 1981 at different levels from those requested by DoD, the baseline alters the five-year program projected by DoD to make it consistent with Congressional actions. Such alterations can involve merely a change in one year of the five-year program, as, for example, when the Congress adds advanced funding not requested by DoD in order to accelerate planned procurement.

If the Congress deleted an entire program from the 1981 budget request, the baseline drops the program from each year of the five-year plan. An example of such action was Congressional deletion of advanced funding for a mid-sized nuclear-powered attack submarine, called the SSNX. The Congress indicated that it would not support this program. Accordingly, the baseline drops procurement of the submarine in all years.

Finally, if in 1981 the Congress funded a program not requested by the Department of Defense, the baseline includes that program in subsequent years of the five-year plan, based upon proposals put forward by the appropriate military service. For example, in the past DoD has not requested funds for developing or procuring the AV-8B vertical/short take-off and landing (V/STOL) attack aircraft. The Marine Corps, however, has indicated that it wants the plane, and Congress has provided funds for both development and advanced procurement of it. The CBO baseline, therefore, adds the AV-8B to the five-year plan, drawing upon Marine Corps estimates of funding and acquisition profiles for fiscal years 1982-1986.

LIMITATIONS OF THE BASELINE

While the information provided by DoD, the Congress, and the military services generally is sufficient for relatively precise estimates of most future budget programs and costs, the costs of all defense programs cannot be estimated with equal precision. In particular, because the CBO baseline is unclassified, it cannot directly address classified programs, such as intelligence programs, although DoD may have developed costs for such programs with great precision. Accordingly, the CBO baseline assumes that expenditures on classified programs will be held at constant real levels throughout the five-year planning period and incorporates

those costs within more highly aggregated, unclassified budget categories.

CBO adopts a similar "straight-line" approach to the costs of research and development programs whose funding profiles have not been explicitly outlined in DoD's five-year plan. Generally, these programs tend to fall into the categories of basic research, exploratory research, or management and support. As noted earlier, programs in engineering or full-scale development are usually sufficiently close to procurement to permit more specific cost estimates.

DEALING WITH UNCERTAINTIES IN DEVELOPING THE BASELINE: THE STRATEGIC BOMBER

In virtually all programs, the CBO baseline either provides estimates of program investment profiles derived from available budgetary material, or else applies a "straight-line" projection of current funding levels. Occasionally, it must employ a more judgmental approach. The strategic bomber requires such an approach because the Congress mandated spending on a new system without detailing a specific system type or program. In this case, CBO used a proxy system to reflect the program approximately in the baseline.

In fiscal year 1981, the President's budget contained no funds for a strategic bomber program to replace the aging B-52 fleet. The Congress, however, appropriated \$300 million for research and development of a new strategic bomber, but did not specify a particular aircraft in the conference report accompanying the final defense appropriations bill. The reports accompanying the initial appropriations bills from the Senate and House Appropriations Committees did address several alternatives, including the B-1 bomber, possible derivatives of the B-1, and the "stretched" FB-111 bomber. The House Appropriations Committee also mentioned new designs incorporating "stealth" technology.

Neither Appropriations Committee specified the characteristics that the bomber should possess. On the other hand, the Armed Services Committees' conference report on the defense authorization bill specified that the aircraft chosen from among the various candidates should be capable of performing the missions of a conventional bomber and have a cruise-missile launch platform and a delivery system for other nuclear weapons. It also specified that the plane's development should be scheduled so that it

would have an initial operational capability (IOC) of 1987. (Neither the conference report on the appropriation bill nor the reports of the two Appropriations Committees specified an IOC, leaving open the possibility of a longer development cycle.)

Given Congressional funding of a new strategic bomber, with uncertainty as to its exact type but with a sense of its required capabilities, CBO used a proxy bomber development program, a modified B-1. This program reflects the language in the authorization conference report regarding mission capabilities. It incorporates the Air Force program for a so-called strategic weapons launcher, with estimated additional funding to provide it with a capability to penetrate enemy territory while carrying nuclear bombs. The costs of the actual bomber program adopted by DoD and the Congress obviously will be subject to considerable variation. Nevertheless, CBO's baseline estimate for that program reflects the magnitude of any undertaking to develop a strategic bomber.

GLOSSARY

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A-10: New Air Force battlefield attack aircraft.

ABM: Anti-ballistic missile.

ADX: New-design destroyer tender.

AH-64: New Army attack helicopter, programmed to fire laser-guided antitank missiles.

AIRS: Advanced Inertial Reference Sphere, the guidance system for the MX missile.

ALCM: Air-launched cruise missile; a pilotless aircraft, propelled by an air-breathing engine that operates entirely within the earth's atmosphere.

ARX: New-design repair ship.

Attack DD: New-design destroyer proposed by the Navy.

AV-8B: Improved version of the AV-8A vertical/short take-off and landing attack aircraft.

B-1: A proposed new long-range bomber; the B-1 program was cancelled in 1977 after production of four development aircraft.

B-52: A long-range bomber aircraft; B-52s compose the majority of the U.S. strategic long-range bomber fleet.

C-130: A cargo aircraft used primarily for intratheater airlift.

CG-47: A 7,800-ton guided missile cruiser employed primarily for air defense.

CV: Conventionally powered aircraft carrier.

CVN: Large, nuclear-powered, multipurpose aircraft carrier.

CX: A medium-size military cargo transport aircraft currently proposed by the Air Force.

End Strength: Number of personnel at the end of a fiscal year.

F-14: Navy fighter aircraft used to achieve air superiority and for fleet air defense.

F-15: Air Force air superiority fighter.

F-16: Air Force strike fighter.

F/A-18: Fighter and attack variants of U.S. Navy and Marine Corps combat aircraft.

F-111: Air Force long-range attack aircraft.

FB-111: A medium-range strategic bomber.

FFG-7: Most recent class of guided missile frigate.

ICBM: Intercontinental ballistic missile.

IFV: Infantry fighting vehicle, a follow-on to the current standard personnel carrier; also termed XM-2.

KC-10: A new Air Force tanker aircraft.

KC-135: Air Force tanker.

LOADS: Low Altitude Defense System, a concept for an anti-ballistic missile system.

LPH: Amphibious assault ship carrying V/STOL aircraft and helicopters.

LSD-41: Amphibious dock landing ship.

LTDP: The Long-Term Defense Program; adopted by NATO in 1977 to improve military capabilities in ten areas: readiness, reinforcement, mobilization, electronic warfare, air defense, logistics, nuclear weapons, maritime posture, communications, and rationalization with arms production; under the LTDP, each NATO member pledged to increase annual real defense spending by 3 percent.

Minuteman III: The most modern U.S. land-based intercontinental ballistic missile.

MIRV: Multiple, independently targetable reentry vehicle.

Mk-4: Type of reentry vehicle carried by the Trident I missile.

MPS: Maritime prepositioning ship (formal designation T-AKX), which could hold heavy equipment for ground force units.

MX: A new land-based intercontinental ballistic missile currently under development.

Polaris: The original class of ballistic missile submarines, each of which carries 16 missiles.

POMCUS: Prepositioning of material configured to unit sets, a program to preposition sets of division equipment in Europe to speed deployment of U.S.-based forces.

Poseidon: A class of strategic submarines, each of which carries 16 ballistic missiles.

SL-7: Commercial container ship converted to fast logistics ship.

SSN-688: The most modern nuclear-powered attack submarine in the U.S. fleet.

SSX: New-design diesel-electric submarine.

T-AKX: Forward-deployed logistics ship (see MPS).

Trident I Missile: The newest submarine-launched ballistic missile with a greater range and yield than the Poseidon missile.

Trident II Missile: Proposed follow-on submarine-launched ballistic missile with projected greater yield and accuracy than the Trident I.

Trident Submarine: New large ballistic missile submarine.

V/STOL: Vertical/short take-off and landing attack aircraft.

XM-1 Tank: New Army main battle tank.

XM-2/3: New Army fighting vehicles.

